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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,954	11/16/2001	Marc A. Blais	FS-00561	7885

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EXAMINER

SINGH, DALIP K

ART UNIT PAPER NUMBER

2676

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,954

Applicant(s)

BLAIS, MARC A.

Examiner

Dalip K Singh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim(s) 1-3, 9, 10, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,366,289 B1 to John.

a. Regarding claim 1, John **discloses**

a memory (video memory 310, Fig. 3);

means (compressor 322, Fig. 3) for storing the compressed graphic image data in the memory (video memory 310, Fig. 3);

means (decompressor 332, Fig. 3) for selectively decompressing (...to access compressed chunks...computes the address of the compressed block control data associated with the chunk...communicates with a decompressor 320 to tell which chunk to

decompress...allows the read or write operation to proceed...col. 7, lines 55-67; col. 8, lines 1-3) a portion of said compressed graphic image data (compressed chunks) as stored in the memory (video memory 310, Fig. 3);

and display means (display 334) for displaying the graphic image of interest based on the portion of the compressed graphic image data as decompressed (...for compressed chunks, the compositor instructs a decompressor 332 to decompress the chunk...output pixels to the display 334...col. 8, lines 27-38).

b. Regarding claims 2 and 3, John **discloses** means for storing the compressed graphic image data in the memory further includes means for storing the compressed graphic image data in a linked list in the memory (...the MAUs...comprise a compressed

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chunk are linked together in a linked list format...col. 14, lines 52-55, Fig. 6), said linked list including a plurality of nodes (Fig. 5 illustrates...data structure...to store the locations and state of chunks in the virtual frame buffer...col. 10, lines 5-22, Fig. 5; ...Fig. 7...illustrating...chunks in the...frame buffer and individual 8x8 pixel blocks in each chunk...col. 16, lines 45-67). The instant application specification on page 13, lines 3-5 describe storage in blocks of memory as nodes of a linked list similarly.

c. Regarding claim 9, it is similar in scope to claim 1 above and is rejected under the same rationale.

d. Regarding claim 10, it is similar in scope to claim 2 above and is rejected under the same rationale.

e. Regarding claim 14, it is similar in scope to claim 1 above and is rejected under the same rationale.

f. Regarding claim 15, it is similar in scope to claim 2 above and is rejected under the same rationale.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim(s) 4-8, 11-12 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,366,289 B1 to Johns.

a. Regarding claim 4, John **discloses** means for flagging, as unused, nodes in the linked list that do not include compressed graphic image data for the graphic image of interest (...as shown in Fig. 4, the VFB controller updates a re-use data structure, which

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is used to identify memory...that can be re-used...updates the flag...to indicate that the chunk is uncompressed...col. 11, lines 1-67). John **discloses** a re-use data structure as compressed data and uncompressed data is being processed which is similar to flagging unused nodes. Therefore, it would have been obvious to a person of ordinary skill in the art at the time invention was made to consider flagging of re-use list similar to flagging unused nodes **because** it provides for a better memory management of the system.

b. Regarding claim 5, John **discloses** means for determining if any nodes in the linked list are flagged as unused (...it reclaims physical memory previously allocated to a compressed chunk...col. 11, lines 6-15), and means for replacing compressed graphic image data in a node flagged as unused, if any in the linked list, with the compressed graphic image data that include compressed data for the graphic image of interest (...it reclaims physical memory previously allocated to a decompressed chunk after it is re-compressed...col. 11, lines 1-40).

c. Regarding claim 6, John **discloses** wherein said means for storing the compressed graphic image data in a node in the linked list further includes means for adding to the linked list a node for storing the compressed graphic image data if no nodes in the linked list are flagged as unused (...the VFB controller adds new entries to the re-use list each time a chunk is decompressed...col. 11, lines 33-50).

d. Regarding claims 7 and 8, it is similar in scope to claim 1 and is rejected under the same rationale.

e. Regarding claim 11, it is similar in scope to claim 4 above and is rejected under the same rationale.

f. Regarding claim 12, it is similar in scope to claim 5 above and is rejected under the same rationale.

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- g. Regarding claim 16, it is similar in scope to claim 4 above and is rejected under the same rationale.
- h. Regarding claim 17, it is similar in scope to claim 5 above and is rejected under the same rationale.
- i. Regarding claim 18, it is similar in scope to claim 6 above and is rejected under the same rationale.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art teach various image data management using linked list structures.

U.S. Patent No. 5,640,496 to Hardy et al. U.S. Patent No. 5,742,797 to Celi, Jr. et al.

U.S. Patent No. 6,326,964 to Snyder et al.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Dalip K. Singh** whose telephone number is **(703) 305-3895**.

The examiner can normally be reached on Mon-Thu (8:00AM-6:30PM) Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Matthew Bella**, can be reached at **(703) 308-6829**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

dk

December 23, 2003



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600